AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (***Currently Amended***) A ~~DNA vaccine~~ therapeutic composition comprising a therapeutically effective amount of a recombinant construct comprising an isolated nucleic acid sequence encoding an antigen ~~selected from~~ , said antigen being human CD25, ~~homologs and fragments thereof;~~ the nucleic acid sequence being operably linked to one or more transcription control sequences, wherein said recombinant construct is a eukaryotic expression vector; and a pharmaceutically acceptable carrier, adjuvant, excipient or diluent.

2. (***Currently Amended***) The composition of claim 1, containing a targeting carrier ~~wherein the CD25 is human CD25~~.

3. (***Original***) The composition of claim 1, wherein the isolated nucleic acid sequence has a nucleic acid sequence as set forth in SEQ ID NO:1.

4. (***Original***) The composition of claim 1, wherein the isolated nucleic acid sequence encodes an antigen having an amino acid sequence as set forth in any one of SEQ ID NOS:2-4.

5. (***Original***) The composition of claim 1, wherein the composition is a naked DNA vaccine.

6. (***Currently Amended***) The composition of ~~claim 1~~ claim 2, wherein said targeting carrier is selected from the group consisting of liposomes, micelles, emulsions and cells.

7. **(*Previously Presented*)** The composition of claim 1, wherein said transcription control sequences are selected from the group consisting of: RSV control sequences, CMV control sequences, retroviral LTR sequences, SV-40 control sequences and β-actin control sequences.

8. (***Currently Amended***) The composition of claim 1**,** wherein the recombinant construct is complexed with liposomes ~~amino acid sequence of said antigen is as set forth in SEQ ID NO: 2~~.

9. (***Currently Amended***) The composition of ~~claim 8~~ claim 4**,** wherein said eukaryotic expression vector is selected from the group consisting of: pcDNA3, pcDNA3.1(+/-), pZeoSV2(+/-), pSecTag2, pDisplay, pEF/myc/cyto, pCMV/myc/cyto, pCR3.1, pCI, pBK-RSV, pBK-CMV and pTRES.

10. (***Withdrawn***) A method of preventing or inhibiting the development of a T-cell mediated pathology, comprising administering to a subject in need thereof a therapeutically effective amount of a DNA vaccine composition according to claim 1.

11. (***Canceled***)

12. (***Withdrawn***) The method of claim 10, wherein the isolated nucleic acid sequence is as set forth in SEQ ID NO:1.

13. (***Withdrawn***) The method of claim 10, wherein the isolated nucleic acid sequence encodes an antigen having an amino acid sequence as set forth in any one of SEQ ID NOS:2-4.

14. (***Withdrawn***) The method of claim 10, wherein said T cell-mediated pathology is an autoimmune disease.

15. (***Withdrawn***) The method of claim 14, wherein said T cell-mediated autoimmune disease is selected from the group consisting of: multiple sclerosis, rheumatoid arthritis, autoimmune neuritis, systemic lupus erythematosus, psoriasis, Type I diabetes mellitus, Sjogren's disease, thyroid disease and myasthenia gravis.

16. (***Withdrawn***) The method of claim 10, wherein said T cell-mediated pathology is graft rejection.

17. (***Withdrawn***) The method of claim 10, wherein said T cell-mediated pathology is a Th1-mediated inflammatory disease.

18. (***Withdrawn***) The method of claim 10, wherein the antigen is expressed in sufficient amount and duration to increase anti-ergotypic T cell response in said subject, thereby inhibiting or preventing the development of said T-cell mediated pathology.

19. (***Withdrawn***) The method of claim 18, wherein said increase in anti-ergotypic T cell response is characterized by a reduction in the secretion of IFNγ and an increase in the secretion of IL-10.

20. (***Withdrawn***) The method of claim 10, wherein the nucleic acid composition is administered as naked DNA.

21. (***Withdrawn***) The method of claim 10, wherein said subject is human.

22. (***Withdrawn***) A method for preventing or inhibiting the development of a T-cell mediated pathology comprising the steps of (a) obtaining cells from a subject; (b) transfecting the cells *in vitro* with a DNA vaccine composition according to claim 1; and (c) reintroducing a therapeutically effective number of the transfected cells to the subject, thereby preventing or inhibiting the development of the T-cell mediated pathology.

23. (***Canceled***)

24. (***Withdrawn***) The method of claim 22, wherein the isolated nucleic acid sequence is as set forth in SEQ ID NO:1.

25. (***Withdrawn***) The method of claim 22, wherein the isolated nucleic acid sequence encodes an antigen having an amino acid sequence as set forth in any one of SEQ ID NOS:2-4.

26. (***Withdrawn***) The method of claim 22, wherein said T cell-mediated pathology is an autoimmune disease.

27. (***Withdrawn***) The method of claim 26, wherein said T cell-mediated autoimmune disease is selected from the group consisting of: multiple sclerosis, rheumatoid arthritis, autoimmune neuritis, systemic lupus erythematosus, psoriasis, Type I diabetes mellitus, Sjogren's disease, thyroid disease and myasthenia gravis.

28. (***Withdrawn***) The method of claim 22, wherein said T cell-mediated pathology is graft rejection.

29. (***Withdrawn***) The method of claim 22, wherein said T cell-mediated pathology is a Th1-mediated inflammatory disease.

30. (***Withdrawn***) The method of claim 22, wherein the antigen is expressed in sufficient amount and duration to increase anti-ergotypic T cell response in said subject, thereby inhibiting or preventing the development of said T-cell mediated pathology.

31. (***Withdrawn***) The method of claim 30, wherein said increase in anti-ergotypic T cell response is characterized by a reduction in the secretion of IFNγ and an increase in the secretion of IL-10.

32. (***Withdrawn***) The method of claim 22, wherein said subject is human.

Claims 33-48 (***Canceled***)

49. (***Withdrawn***) The method of claim 10, wherein said disease is rheumatoid arthritis.

50. (***Withdrawn***) The method of claim 22, wherein said disease is rheumatoid arthritis.